

Geometronics

Service and Support

By Randy Oberg
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- Sometime between 1983 and 1986 Ron began traveling and giving Training and Support to survey crews around the state, while still running his survey crew in Portland.
- In 1986 he became a Hwy Engineer 3 and joined the Automation group Training and Support ODOT Surveyors
- A Surveying Unit (of One) was formed under the Automation group sometime around 1993
- In April 1997 Geometronics was formed when Survey Support and Photogrammetry were placed together with Ron as Manager
- June 2004 Right-of-Way Engineering was added
- May 2005 Geodetic control Specialist was added

A Little History of

Geometronics

Geometronics

Derived from the term Geomatics "Geo" meaning Earth and Matic from Infomatic which is the French word for Computer Science.

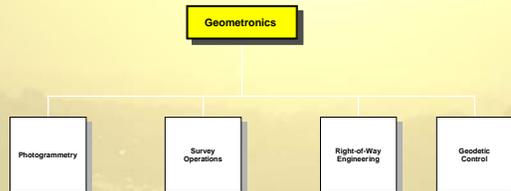
Geomatics is regarded as a collection of many sciences that encompass all activities related to acquisition, processing querying analyzing and managing of georeferenced spatial data.

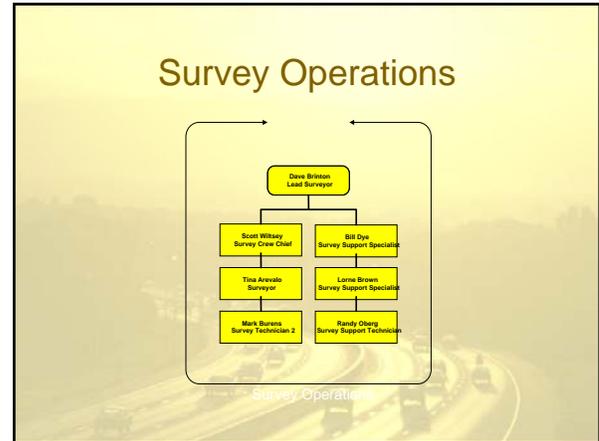
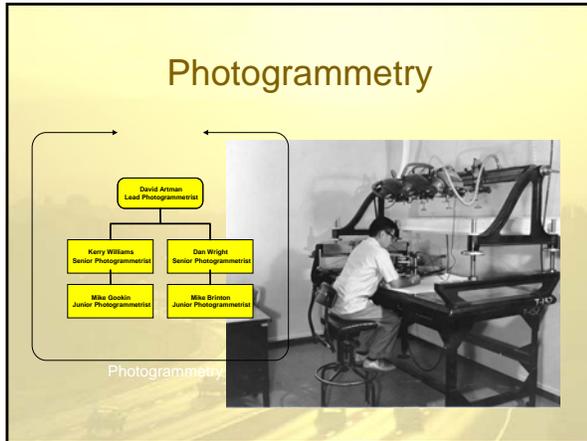
Geomatics is rapidly becoming recognized as the international term for Surveying

To know the history of Geometronics we must discuss the history of Survey Support and Ron Singh

- Ron was hired in 1975 as an Engineers Aid in Grants Pass
- He took a year off and tried the consultants
- He was hired back in 1977 as an Engineers Aid in Portland
- In 1983 he became a Hwy Engineer 1 (Survey Crew Chief)

Geometronics as we know it today





- ### Photogrammetry Group
- Technical Experts
 - Administer Consultant Contracts for Photography and Photogrammetry
 - Standards Development
 - QA on Consultant Products
 - STIP, OTIA, and Cracked Bridge Production Activities

- ### Survey Support
- Procurement and Management of Survey Equipment
 - Survey Training and Technical Support
 - Survey Policies and Procedures
 - Survey Manuals
 - Survey Expertise
 - Research and Evaluation of New Survey Instruments
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- ### Recent Advancements
- Low Level Helicopter Photogrammetry
 - Aero-Triangulation
 - Digital Stereoplotter - Softcopy
 - Ortho-Rectified Photo Mosaics
 - LIDAR – Airborne Radar Mapping
 - Airborne GPS for Photo Control



Geodetic Survey Crew

- Establishment of Project Horizontal and Vertical Control
- Photogrammetry Support
- Emergency Surveys
- Specialized Surveys
- High definition surveying



RIGHT OF WAY ENGINEERING

- Region & Consultant Training
- Excess Property Sales
- Jurisdictional Transfer And Abandonment Of Highways
- Highway Design Corridor Resolution (Survey Approval) Exhibits
- Court Exhibits
- Indenture Of Access And Grants Of Access
- Quality Assurance
- Technical Research And Resource
- Right Of Way Engineering Standards And Practices
- Right Of Way Donations
- Deed Recording (Current Backlog)
- Review Railroad Encroachment Exhibits
- STIP Or OTIA Projects Drafted On Existing Maps
- Forest Service Plats
- BLM Filing Maps

High Definition Surveying

- HDS Systems Capture Thousands of Points per Second – Scanning an Area or Object With a Continuous Sweep of a Laser Beam
- Total Station in Steroids



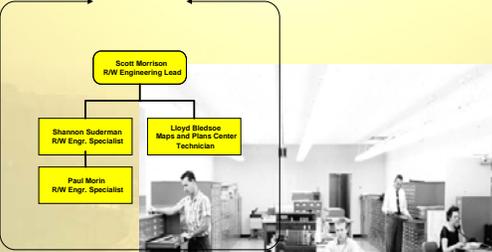
MAPS & PLANS CENTER

Acts as a Central Records Library and Research Center for the Agency, its Consultants, and the Public. These Records Include:

- 8,000 Right Of Way Maps
- 10,000 Sets Of Contract Plan Sheets
- 4,200 Survey Field Notes

The Center Catalogs and Maintains These Records in Various Databases and Assigns the Project "V" Numbers, Right of Way Map Numbers and Field Survey Book Numbers.

Right-of-Way Engineering




R/W Engineering

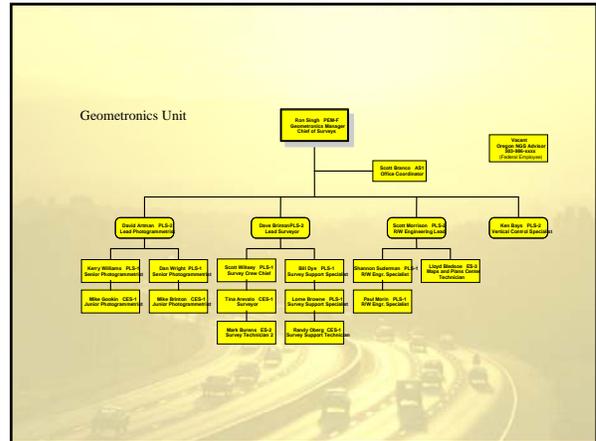
Geodetic Control Specialist




Geodetic Control

Geodetic Control Specialist

- The Geodetic Control Program is new to ODOT.
- It is intended to revive, enhance, and then maintain the Vertical and Horizontal Control infrastructure across the State of Oregon
- Re-establish and maintain Bench Marks
- Develop and maintain GPS Reference Station Network



Office Coordinator and More

Office Administration

Other Products and Services

- GPS Services (surveying and other)
- Archives for (State and NGS) Horizontal and Vertical Control Data
- Legislative Liaison (for survey issues)
- County Surveyor Liaison
- OSBEELS Liaison
- Contractor Surveying Specifications
- Aerial Photo Archives
- NGS Advisor

Office Coordinator

- Purchasing
- Web Design
- Many behind the scenes preparations for this Conference
- Always Will to lend a hand

Geometrics Services

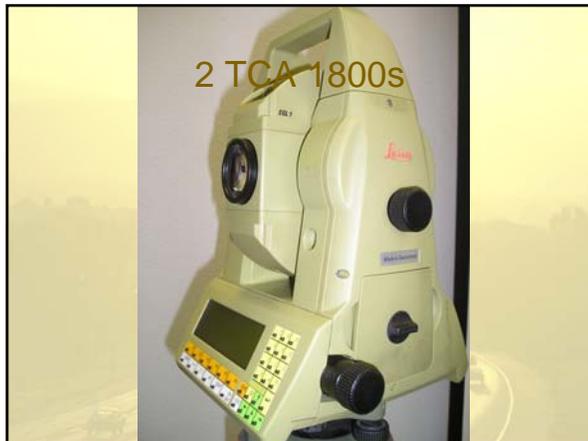
- Equipment Repair
 - TCA reprogramming
 - TCA biannual Servicing
 - Battery Recelling and Replacements
 - Replacement of broken memory card cases
- New Equipment Purchases
 - Additional Memory card for TCA
 - Additional Equipment purchases are by approval of Ron Singh as to whether Geometric will pay for it or not
- Bench Mark Information
 - Free for now
 - May have to Start charging consultants for this service?
- Equipment Available for use by checkout
- Help in barrowing Equipment from other regions

Here is some of the
Equipment we have
Available for you

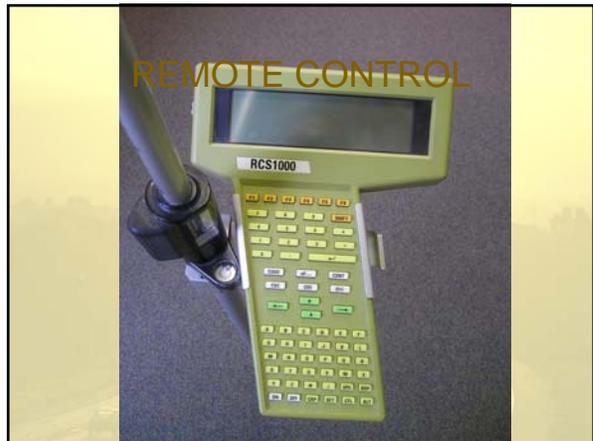
DNA DIGITAL LEVEL



2 TCA 1800s



REMOTE CONTROL



2 TCRAs



DISTO



